IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of Thieret et al.

Application No.: 09/731,205

Filed: 12-6-2000

For: AN INTELLIGENT SYSTEM NETWORK INTERFACE ARCHITECTURE FOR DOCUMENT PROCESSING DEVICES

Art Unit: 2625

Examiner: Thierry L. Pham

Docket No.: A0508-US-NP
XERZ 2 00344

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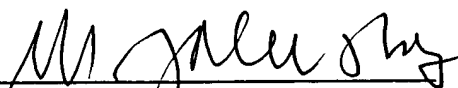
TRANSMITTAL OF REPLY BRIEF

Dear Sir:

Applicants transmit REPLY BRIEF responsive to the Examiner's Answer mailed June 29, 2006 for the above-referenced patent application.

No fee is believed to be due. The Commissioner is authorized to charge any fees which my be required or credit any overpayment to Deposit Account No. 24-0037.

Respectfully submitted,

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Date 8/29/06

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Application No.: 09/731,205

Filed: December 6, 2000

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APPELLANT'S REPLY BRIEF UNDER 37 C.F.R. §41.41

Appeal from Group 2624
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I. STATUS OF CLAIMS

Claims 1-23 were finally rejected on July 13, 2005.

Claims 1-23 are on appeal.

A correct copy of claims appears in the Appendix attached hereto.

II. STATUS OF AMENDMENTS

No Amendment After Final Rejection has been entered.

III. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection have been presented for review in the Amended Appeal Brief filed March 27, 2006:

ISSUE 1.   Whether **Claim 1 and dependent Claims 2-6** are properly rejected under 35 U.S.C. §103(a) as being obvious over Sorkin (U.S. Patent No. 5,898,823) in view of Irie (U.S. Patent No. 6,606,164).

ISSUE 2.   Whether **Claim 7 and dependent Claims 8-18** are properly rejected under 35 U.S.C. §103(a) as being obvious over Sorkin (U.S. Patent No. 5,898,823) in view of Irie (U.S. Patent No. 6,606,164).

ISSUE 3.   Whether **Claim 17** is properly rejected under 35 U.S.C. §103(a) as being obvious over Sorkin (U.S. Patent No. 5,898,823) in view of Irie (U.S. Patent No. 6,606,164).

ISSUE 4.   Whether **Claim 18** is properly rejected under 35 U.S.C. §103(a) as being obvious over Sorkin (U.S. Patent No. 5,898,823) in view of Irie (U.S. Patent No. 6,606,164).

ISSUE 5.   Whether **Claim 19 and dependent Claim 20** are properly rejected under 35 U.S.C. §103(a) as being obvious over Sorkin (U.S. Patent No. 5,898,823) in view of Irie (U.S. Patent No. 6,606,164).

ISSUE 6.   Whether **Claim 22 and dependent Claim 23** are properly rejected under 35 U.S.C. §103(a) as being obvious over Sorkin (U.S. Patent No. 5,898,823) in view of Irie (U.S. Patent No. 6,606,164).

IV.   ARGUMENT

The argument here is presented in response to the Examiner's Answer ("EA") and is not intended to substitute the Amended Appeal Brief filed March 27, 2006.

Issues 1,2, 5 and 6 (Claims 1, 7, 19 and 22)

Examiner continues misinterpreting Sorkin

A.   Client computer of Sorkin is not in direct communication with the printer

In response to the Appellant's argument that the client computer of Sorkin is not in direct communication with the marking system because the client computer does not know the printer's address at the beginning of the communications, the Examiner clarifies that Sorkin is being interpreted by the Examiner as *after it has established the communication link* between the two devices. (EA, p. 9, last paragraph.) Examiner ignores that Claim 1 of the present application calls for the two devices to have discovered one another and be in direct communication, while Sorkin's content is preparatory to actual printer management, e.g. the client computer discovers the printer address with the intention for "[t]hereafter, when the need arises to send communications directly to the printer" (Col. 2, line 36.) Such communications from the client computer to the printer are not direct.

The Examiner further contends that the present application does not show how the two devices establish communication link contrary to Sorkin which explains how the two devices initially establish communication link. (EA, p. 9, last paragraph.) Again, the Examiner is missing the very point the Appellants are making. While Sorkin is directed to establishing the communication link between the two devices prior to the start of printer management, the two devices of present application do not need to establish a communication link as the printer address is known to the network controller. (For example, please see claim 19, last paragraph.)

B.   The control data from the client computer of Sorkin is not communicated to the document processing device ("DPS")

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The Examiner continues ignoring the fact known in the art that the purpose of the spooler, such as described in Sorkin, is to temporarily store print jobs before routing the print jobs to the DFEs of various printers. The printer of Sorkin is depicted as a black box, the sub-units of which are not differentiated and not described. Moreover, Sorkin teaches SNMP protocols. Again, it is a fact known in the art that the SNMP protocols are supported by the DFE in typical printers and do not provide access to the marking device. Therefore, Sorkin does not communicate with the marking device. Sorkin communicates with the DFE. This is a hindsight reasoning on the part of the Examiner who is asserting that Sorkin communicates with the marking device. The Examiner is clearly importing the Applicants concepts into Sorkin.

C.   The client computer of Sorkin is not in *parallel* communication with the document processing device and the document processing device controller ("DFE")

As discussed above, Sorkin does not describe communicating to the document processing device. The two communication links which are depicted and described in Sorkin are parallel communication links with the DFE.

Examiner continues misinterpreting Irie

The Examiner continues ignoring that the print server 120 of Irie does not translate the job data into data format executable by the document processing device. Irie mentions only that the print server "converts" the print data into a form of a print job. (Col. 8, lines 47-49). Those skilled in the art of printing architectures recognize several different "conversions" of the print data, one of which is the conversion of the print job into signals suitable for printing. Therefore, when the reference teaches the "conversion" of the print data, one cannot automatically fall into an erroneous position taken by the Examiner and assume that any cursory mentioned "conversion" of the print job is a conversion into signals suitable for printing. Most importantly, Irie does teach that the job data is translated into data format executable by the document processing device by a data analyzing/print data generating part 159. (Fig. 3, col. 7, lines 25-31). As it is known to those skilled in the art, the print job does not need to be converted into the format suitable for printing more than once.

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New Ground of Rejection

The Examiner contends that it is well known in the art that the print server can have a conversion capability of converting the print data into a printable format. The Examiner refers to US 6614546 ("Kurozasa"), col. 12, lines 45-45 (EA, p.11, lines 6-9). The Applicants note that the Examiner applies a new art which is not on the record in response to the Applicants argument that has been on prior record. The Applicants submit that such application of new art invokes a new ground of rejection of claims 1, 7, 19 and 22 and should have been treated as such in the Examiner's answer. The Examiner seems to imply that Sorkin combined with Kurozasa makes the Applicants concepts obvious. However, the Examiner fails to demonstrate the motivation or suggestion to combine or modify the references. The Applicants submit that whether the printer server of Kurozasa has or does not have a capability of converting the print data into a printable format is irrelevant as is taken out of content and is not applied in combination with any other art. An issue which is appealed here is not whether the device labeled a "print server" has or does not have a capability of converting the print data into a printable format, but rather whether the motivation or suggestion exists in the art to combine or modify the references so that two parallel communication paths are established – one which by-passes the "DFE" and communicates the control data directly to the marking device and other which lies through the "DFE" and delivers the print data in the printable format to the marking device. The Examiner simply uses impermissible hindsight reasoning. Neither Sorkin, Irie, nor Kurozasa is concerned with by-passing the "DFE" and talking directly to the marking device when communicating the control data. The Applicants were first to think of this concept.

Accordingly, the Applicants submit that because (1) neither Sorkin, Irie or Kurozasa, taken singularly, or in combination teaches all elements of claim 1 (or any of claims 7, 19 and 22) and (2) no motivation or suggestion to combined teachings has been presented or, more importantly, exists in the cited art itself, independent claims 1, 7, 19 and 22 and all corresponding dependent claims distinguish patentably and unobviously Sorkin, Irie and Kurozasa.

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The Examiner fails to counter reasons showing that Sorkin teaches away

The Examiner contends that "[b]oth Sorkin and client's invention involve by-passing a central device (i.e. spooler) to have control data sends[sic] directly from client computer to printer." (AE, p. 16, lines 6-7.) Applicants note that while Sorkin, as correctly noted by the Examiner, is concerned with by-passing the spooler, the present application is directed to by-passing a DFE and not a spooler. Therefore, the Applicants re-emphasize the argument made in the Appeal Brief that Sorkin is teaching away from the Applicants concepts as one, skilled in the art, would be looking to Sorkin to by-pass the spooler and establish a direct communication path between the client computer and the DFE.

The Examiner fails to counter reasons showing that Irie teaches away

Applicants submit this part of the Examiner answer be at least deficient. The Examiner makes an interesting but entirely unpersuasive and irrelevant argument: "Irie's disclosure does not teach away ... because it alls [sic] involves printing. And each (client's invention, Sorkin's disclosure, and Irie's disclosure) involves transmitting print data from the client machine to the print server before forwarding to printer." (EA, p.16, bottom.) At best, such arguments would have been appropriate had the Applicants argued the application of non analogous art. In addition, the Examiner does not seem to perceive the difference between the name of the device and the device function. For example, the print server of the current application is the DFE, the print server of Sorkin is a spooler and the print server of Irie performs some sort of the print job conversion as discussed above. The Applicants do not disagree with the Examiner that the prior art teaches transmitting the print data from the client computer to the DFE before forwarding it to the printing device for printing. However, the Applicants' application is directed to by-passing the DFE when communicating the control information to the printing device.

The Examiner fails to prove that his analysis includes any knowledge other than the knowledge taken only from the applicant's disclosure

The Examiner relies on *In re McLaughlin* to support his obviousness rejection. "Any judgment on obviousness is in a sense necessarily a reconstruction based

upon hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made and does not include knowledge only from the applicant's disclosure, such a reconstruction is proper." *McLaughlin*, 443 F.2d 1392 (CCPA 1971). In *McLaughlin*, a primary reference, "Cook", disclosed a railway box car having sides defining oversized door opening in diagonally opposite ends of the car. Cook was combined with the secondary references which disclosed filler panels and bulkheads to confine palletized loads to prevent lateral and longitudinal shifting. Appellant argued that while Cook showed elongated, offset doors, it did not suggest combination with filler panels and bulkheads since Cook was directed to loading and unloading simultaneously from both sides, while the Appellant's concept prevented such an operation. However, the court disagreed with the Appellant and noted that "[s]ince the secondary references show that it is well known to use side filler panels and bulkheads to confine palletized loads to prevent lateral and longitudinal shifting, we agree that those references would have suggested use of such panels and bulkheads with Cook for the same purpose."

In the present application, the primary reference, Sorkin, describes a first communication path to the printer which lies through the spooler to the DFE. A second communication path lies from the computer to the DFE, by-passing the spooler. The Examiner combines Sorkin with Irie, which describes a single communication path into the printer's DFE where the print job is converted into the print signals recognizable by the marking device. Unlike the secondary reference of *McLaughlin*, Irie does not describe by-passing the DFE while communicating to the marking device.

Since neither Sorkin, nor Irie is concerned with providing a communication path which avoids the DFE, such combination of the references reflects an improper hindsight gleaned "only from the applicant's disclosure" against which the *McLaughlin* court warned.

V.   CONCLUSION

For all of the reasons discussed above, it is respectfully submitted that the rejections are in error and that Claims 1-23 are in condition for allowance. For all of

the above reasons, Appellants respectfully request the Board of Appeals to reverse the rejections.

Respectfully submitted,

8/29/06

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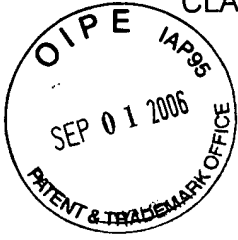FAY, SHARPE, FAGAN, MINNICH & McKEE, LLP
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CLAIMS APPENDIX

CLAIMS INVOLVED IN THE APPEAL:

1. A network document system including:

a document processing device,

a document processing device controller and

a network interface controller for communicating job data and control data to and from a network, wherein the interface controller is disposed, between the document processing device controller and the network, and in parallel communication with the document processing device and document processing device controller, for segregating the job data and the control data, and wherein the segregated control data is directly communicated between the network interface controller and the document processing device which document processing device controller is disposed between the network interface controller and the document processing device for translating the job data, which is communicated from the network interface controller to the document processing device independently from the control data, into data format executable by the document processing device.

2. The system as claimed in claim 1 wherein the control data includes any of: diagnostic data, operating software, remote operating instructions, performance reports, specification of system states and the associated actions, or requests for information from system elements.

3. The system as claimed in claim 2 wherein the performance reports comprise a number of documents generated by the document processing device, accounting information for assigning a billing responsibility for the documents generated, toner, ink, or paper consumption data, service history, device configuration, usage data, current status, machine identification or part or system failure data.

4. The system as claimed in claim 1 wherein the interface controller identifies object-oriented rendering data within the job data, and parallelly

communicates the object-oriented rendering data to the document processing device controller and the document processing device.

5. The system as claimed in claim 1 wherein the interface controller identifies object-oriented rendering data within the job data, and individually communicates the object-oriented rendering data to the document processing device controller and the document processing device.

6. The system as claimed in claim 1 wherein the interface controller comprises either a physical or logical entity in the system.

7. A business to business communication system for controlling and monitoring a document processing device through network communications, comprising:

a document processing device responsive to remote communication signals and capable of issuing device operating status signals, the communication signals and status signals being received and sent, respectively, via a network system;

a network interface controller interposed between the document processing device and the network system for distinguishing the remote communication signals as job data or control data; and

a document processing device controller, disposed intermediate the network interface controller and the document processing device, for translating the job data, which is communicated from the network interface controller to the document processing device independently from the control data, into a data format executable by the document processing device;

while the control data is communicated to the document processing device directly straight from the network interface controller and independently from the job data.

8. The system as defined in claim 7 wherein the control data includes the device operating status signals communicated as a regular operational report or in response to an inquiry received by the network interface controller from the network system.

9. The system as defined in claim 7 wherein the control data includes commands, flags or instructions for the device or interface controller to interpret or execute for determining under what conditions the system should return information to a remote entity.

10. The system as defined in claim 7 wherein the control data includes instructions, flags or commands telling the system what information is to be returned to a remote entity.

11. The system as defined in claim 7 wherein the control data includes instructions, flags or commands telling the system what types of local information processing should be performed on machine information before being returned to a remote entity.

12. The system as defined in claim 7 wherein the remote communication signals comprise a request and a response for control data from the document processing device and specification of document processing device conditions and associated actions.

13. The system as defined in claim 8 wherein the device operating status signals comprise billing information.

14. The system as defined in claim 8 wherein the device operating status signals comprise accounting information.

15. The system as defined in claim 8 wherein the device operating status signals comprise service information.

16. The system as defined in claim 7 wherein the control data comprises object-oriented rendering data.

17. The system as defined in claim 16 wherein the object-oriented rendering data distinguishes text, pictures and business graphics for enhancing document processing device operation.

18. The system as defined in claim 17 wherein the object-oriented rendering data comprises page description language data about a document to be made at the document processing device.

19. A network document processing system, in which job data for processing a document is communicated from a job source to a printer via a network, comprising:

a digital front end (DFE) disposed in communication with the printer for receiving and translating the job data into imaging signals recognizable by the printer; and,

an intelligent interface network controller (iNIC) disposed intermediate the network and the DFE, and in parallel communication with the printer and the DFE, for selectively communicating the job data and control data independently from one another to or from the printer, which control data bypasses flow path communication through the DFE during printer communication with the network.

20. The document processing system as claimed in claim 19 wherein the job data and the control data enable printer value-added services and management functions.

21. The document processing system as defined in claim 14 wherein the printer value-added services and management functions include at least one of: remote diagnostics, remote device management, image processing, process control, software update, consumable supplies status and ordering, and variable data job integrity.

22. A method of operating a network-based assembly for document processing wherein the assembly includes an interface controller connected between a document processing device and a network system, and a digital front

end (DFE) connected between the interface controller and the document processing device, the method comprising steps of:

communicating job data and control data to the assembly through the network system;

determining the appropriate flow of the job data and the control data to the assembly through the interface controller;

segregating, at the interface controller, the control data from the job data;

communicating the control data directly to the document processing device and the job data at least to the DFE;

converting the job data at the DFE to document processing signals recognizable by the document processing device;

directing the document processing signals to the document processing device; and,

executing the document processing signals at the document processing device, whereby the control data is communicated to and from the document processing device exclusive of a flow path through the DFE.

23.   The method as claimed in claim 22 wherein the executing comprises processing the document in a xerographic environment.